

5    What is Claimed is:

1. A channel for forward transmission of a data comprising:

a header subframe containing frame mapping information of data to be transmitted to a plurality of terminals; and,

10    data subframes containing data multiplexed therein, and to be transmitted to a plurality of terminals at the present time in correspondence to frame mapping information transmitted in advance.

2. A channel as claimed in claim 1, wherein the frame mapping information transmitted in advance is transmitted 'n' frames before contained in other frame.

15    3. A channel as claimed in claim 2, wherein the frame mapping information transmitted in advance is transmitted 'n' frames before contained in other frame, and contains information on positions of the multiplexed data subframes in the frame.

20    4. A channel as claimed in claim 3, wherein the frame mapping information transmitted in advance is subframe numbers transmitted 'n' frames before to other frame in succession, and the multiplexed data subframes are positioned in the frame according to an order of transmission of the subframe numbers.

25    5. A channel as claimed in claim 1, wherein the header subframe contains data subframe numbers, frame quality indicator, and reserved/encoder tail information.

6. A channel as claimed in claim 1, wherein the data subframe contains data to be

5 transmitted to a relevant terminal, frame quality indicators, and reserved/encoder tail information.

7. A channel as claimed in claim 1, wherein the header subframe is scrambled in a code all the terminals know.

10 8. A channel as claimed in claim 1, wherein the data subframes are encoded in codes only relevant terminals know.

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15 9. A channel as claimed in claim 1, wherein the data subframes are multiplexed according to an order of generation.

10. A channel as claimed in claim 1, wherein the data subframes are multiplexed according to priorities of the terminals.

20 11. A channel as claimed in claim 1, wherein the data subframes are encoded, symbol repeated, interleaved, and scrambled.

12. A channel as claimed in claim 1, wherein, in case the data subframe can not complete one frame fully, a power supply for a section of the frame without data transmission  
25 is turned off.

13. A channel as claimed in claim 1, wherein at least one of the data subframes contains a broadcasting data to be transmitted to all terminals.

14. A channel as claimed in claim 13, wherein the frame mapping information of the data subframe that transmits the broadcasting data is transmitted 'n' frames before to a header subframe of other frame.

15. A channel as claimed in claim 13, wherein the data subframe that transmits the broadcasting data is scrambled with codes known to all terminals that use the broadcasting service.

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16. A method for forward transmission of a data, comprising the steps of:

- (a) processing data to be transmitted at the present time to form subframes;
- (b) multiplexing the formed subframes according to subframe mapping information transmitted in advance; and,
- (c) transmitting the multiplexed subframes, together with subframe mapping information of the subframes to be transmitted thereafter.

17. A method as claimed in claim 16, wherein the step (a) includes the steps of; encoding, symbol repetition, interleaving, and scrambling for forming subframes.

18. A method as claimed in claim 16, further comprising the steps of:  
a terminal being allocated with a subframe number of the terminal;  
the terminal receiving subframe mapping information, and determining containment of the subframe number of the terminal; and,

the terminal receiving a data for the terminal after 'n' frames at a position the

5 subframe number indicates, if the subframe number of the terminal is contained as a result of the determination.

19. A method as claimed in claim 16, wherein the formed subframes are multiplexed according to an order of formation.

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20. A method as claimed in claim 16, wherein the formed subframes are multiplexed according to priorities of the terminals.

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21. A method as claimed in claim 16, wherein the frame mapping information is scrambled with codes all the terminals know.

22. A method as claimed in claim 16, wherein the subframes are scrambled with codes only a relevant terminal knows.

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23. A method as claimed in claim 16, wherein the number of formed subframes is increased/decreased in proportion to a transmission rate of a data transmission channel.